



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,258	07/26/2006	Akihiko Fujii	293717US0PCT	6672
22850 7590 09/02/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER KING, FELICIA C				
ART UNIT 1784		PAPER NUMBER		
NOTIFICATION DATE 09/02/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/587,258

Filing Date: July 26, 2006

Appellant(s): FUJII ET AL.

\_\_\_\_\_  
Richard L. Chinn, Ph.D.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/17/10 appealing from the Office action mailed  
3/29/10.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Application 10/596609

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-8

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS."

New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

GB 354,942	Stelkens	8-1931
3615666	Schlichter	10-1971
2430663	Behrman	11-1947
JP 6-315434	Sosuke	11-1994

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1, 2, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stelkens (GB 354,942) Sosuke et al. (JP 6-315434 Translation).**

**Regarding Claim 1:** Stelkens discloses a coffee composition where poisonous substances are removed using a zinc chloride activated carbon [page 1, lines 12-26 and Page 1, lines 95-106]. Further, Sosuke discloses a coffee composition where "coffee poor ingredients" are removed by filtering coffee through activated carbon near 30 -100 Å in size, coconut husk activated carbon near 10Å in size, or zeolite (an absorbent mineral mix) around 1-5 Å in size [0007, 0011, 0013, 0014].

At the time of the invention it would have been obvious to one of ordinary skill in that art having Stelkens and Sosuke before him or her that mixing the coffee grounds in Stelkens with activated carbon having the Å (angstrom) sizes as disclosed in Sosuke would result in a product

having reduced levels of poisonous substances such as HHQ. The coffee grounds in Stelkens are treated using a very similar process as in the instant specification [See instant Application Example 7] because Stelkens uses a similar activated chloride method as discussed in the instant claim and Sosuke uses the same particles sizes as discussed in the instant application, it would have been obvious that the treatment of coffee grounds with activated carbon having similar Å size would result in a coffee product having significantly reduced levels/removal of poisonous substances such as HHQ and to continue to reduce the levels of undesirable chemicals such as HHQ in coffee by using the activated carbon method, until the desired level/removal of the poisonous substance was obtained. Stelkens' and Sosuke's failure to specifically recite the removal of the named substance HHQ does not negate the fact that a poisonous substance such as HHQ is removed by the activated carbon method at the disclosed particle size.

**Regarding Claim 2:** Stelkens and Sosuke disclose a coffee composition treated in a similar manner as described above and as such it would have been obvious that the coffee composition would have similar properties when analyzed by HPLC as the coffee composition in the instant claims.

**Regarding Claim 6:** Stelkens discloses treatment via activated carbon [lines 96-99]. Sosuke discloses treatment via activated carbon [0007, 0011, 0013, 0014].

**Regarding Claim 7:** Stelkens discloses carbon activated by the zinc chloride method [lines 96-100].

**Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stelkens (GB 354,942) in view of Sosuke et al. (JP 6-315434 Translation) and Schlichter (US 3,615,666).**

**Regarding Claim 3:** Stelkens discloses a coffee composition treated to remove poisonous materials as discussed above but does not disclose a soluble coffee composition. Sosuke discloses removing “coffee poor ingredients” by using activated carbon as discussed above. However, Schlichter discloses a soluble coffee composition [col. 1, lines 4-9].

At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Stelkens, Sosuke, and Schlichter before him or her to modify the composition of Stelkens to include a soluble coffee composition as in Schlichter because it provides an faster alternative to the traditional brewed coffee as desired by consumers.

**Regarding Claim 8:** Stelkens discloses the coffee composition as discussed above but does not disclose spray drying or freeze drying the composition. Sosuke discloses removing “coffee poor ingredients” by using activated carbon as discussed above. However, Schlichter discloses a composition made by freeze drying or spray drying [col.3, lines 51-55].

At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Stelkens, Sosuke, and Schlichter before him or her to modify the composition of Stelkens to include a soluble coffee composition as in Schlichter because it provides an faster alternative to the traditional brewed coffee as desired by consumers. Further it is very well known in the art that soluble/instant coffees are prepared by freeze drying.

**Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stelkens (GB 354,942) in view of Sosuke et al. (JP 6-315434 Translation) and Behrman (US 2,430,663).**

**Regarding Claim 4:** Stelkens discloses a coffee composition as discussed above but does not specify providing the coffee in a package. Sosuke discloses removing “coffee poor ingredients” by using activated carbon as discussed above. Behrman discloses a packaged dry coffee composition [col.1, lines 6-10].

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Stelkens and Behrman before him or her to modify the coffee composition of Stelkens to include a packaging mechanism because packaging maintains the qualities and flavors of coffee [Behrman col.1, lines 24-27].

**Regarding Claim 5:** Stelkens discloses a coffee composition and as such would be expected to have similar properties as analyzed by HPLC as discussed above. Sosuke discloses removing “coffee poor ingredients” by using activated carbon as discussed above. Behrman discloses packaging the coffee product as discussed above.

#### **(10) Response to Argument**

On pages 4-11, Appellants assert that the evidence of insufficient removal of HHQ given in 3 separate declarations was ignored. Examiner disagrees because in each Office Action subsequent to the submission of declarations regarding HHQ, Examiner acknowledged and addressed the declarations in relation to the prior art and evidence showing removal of HHQ.

The April 2009 declaration was addressed in the July 2009 Office Action. Examiner noted that only the parameters of Stelkens were duplicated and noted that since the rejection was based

upon a combination of the Stelkens and Sosuke references, experiments involving the Sosuke carbon would have been more representative of adverse findings since Stelkens did not specifically recite a particular type of activated carbon. In the April 2009 declaration, Appellants' found HHQ present at .00112%, chlorogenic acid content .46549%, and that the HHQ/chlorogenic ratio was .0024.

The September 2009 declaration was addressed in the December 2009 Office Action. Examiner noted that although the activated carbon referred to in Sosuke was incorporated, that Appellants did not maintain the coffee and carbon exposure time, which Examiner pointed out would have been an important variable in extracting a desirable amount of substances.

The March 2010 declaration was addressed in the March 2010 Advisory Action. Examiner acknowledged that the Appellants extended the time for extraction as in Stelkens in combination with the activated coconut husk of Sosuke but maintained that it would have been obvious to treat the activated carbon until a desired amount of poisonous substances were removed.

Although the experiments, based upon the prior art, resulted in higher levels of HHQ in coffee than disclosed in the claims, Appellants' declarations have shown what is considered to be *expected* results and support variability of levels of extraction of HHQ based upon variations in parameters. As discussed in the previous Office Actions, the various declarations give evidence that time and carbon type have a considerable effect on the level of extraction of substances from ground coffee. The April 2009 declaration and the March 2010 declaration both reflect a 5 minute activated carbon exposure time and also result in a lower amount of HHQ being present in the coffee product (higher removal of HHQ); as contrasted with the July 2009 declaration which has the activated carbon and coffee reacted for 3 minutes and results in HHQ present in a coffee product in an amount higher (lower removal of HHQ) than in the April 2009 and March 2010 declarations.



Appellants' declarations appear to support the position of the Examiner, that given the disclosures of the prior art references, it would have been obvious that contacting and reacting activated carbon with ground coffee would have resulted in the reduction HHQ levels in contrast with contacting ground coffee with non-activated carbon. Further, based upon the combined teachings of Sosuke and Stelkens it would have been obvious to treat coffee with coconut husk activated carbon, for a time, until a desired amount of undesirable substances were removed. Further, variables such as time are well known in the art and it would have been obvious to one of ordinary skill in the art to lengthen extraction time to remove larger amounts of a target substance.

On page 8, Appellants argue that because HHQ was not specifically named as a poisonous substance in the references, there would have been no motivation to remove HHQ from coffee. Examiner maintains that it is not a far stretch to refer to HHQ as a poisonous substance in that it has toxic effects on the body such as the cleavage of DNA strands. Examiner also disagrees because regardless of how Appellants characterizes substances extracted by the activated carbon method, Appellants are not entitled to a patent where the product is an old product and the patentability is based upon a new characteristic of an old product.

On pages 5 and 10, Appellants assert that the Behrman and Schlichter references do not cure the deficiencies in the rejection. Examiner maintains that the references were not used to meet the limitations regarding HHQ content, which Examiner maintains were met by the Stelkens and Sosuke disclosures, but were instead disclosed to address the limitations of the dependent claims.

Art Unit: 1784

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/F. K./  
Examiner, Art Unit 1784

Conferees:

/Jennifer C. McNeil/  
Supervisory Patent Examiner, Art Unit 1784

/Keith D. Hendricks/  
Supervisory Patent Examiner, Art Unit 1781